

REMARKS

Claims 1, 3, 4, 6-20, 23-25, and 27-46 are pending. No claims have been allowed.

The Examiner rejected Claims 1, 3, 6-8, 12-14, 18, 20, and 36-39 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,952,719 to Fenton et al. ("Fenton et al. '719"). The Examiner rejected Claims 10, 11, 24, 25, 27-34 and 40-46 under 35 U.S.C. §103(a) as being obvious in view of Fenton et al. '719. The Examiner objected to Claims 4, 9, 15-17, 19, 23, and 35 as being dependent upon rejected base claims, but indicated that same would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

Fenton et al. '719 discloses a vacuum-actuated anti-backfire fuel control valve 10 for engine 70, shown in Fig. 1. Fuel tank 60 is connected to valve 10 via only a single conduit 63 which is connected to a lower portion of fuel tank 60 and fluidly communicates liquid fuel from fuel tank 60 to valve 10. (col. 3, lines 52-62). Valve 10 is connected to fuel pump 72 and carburetor 71 via conduit 64, and valve 10 is also fluidly communicated with port 83 of crankcase 79 of engine 70 via conduit 84. Generally, valve 10 is operable to allow supply of liquid fuel from fuel tank 60 to engine 70 when engine 70 is running, and to cut off the supply of fuel when engine 70 is stopped. Specifically, referring to Fig. 1, when engine 70 is running, negative pressure is communicated via conduit 84 and check valve 42 to chamber 72 beneath diaphragm 51 to unseat diaphragm 51 from valve seat 23, allowing fuel to pass from fuel tank 60 to engine 72 through conduits 63 and 64. When the engine is stopped, spring 52 seats diaphragm 51 against seat 23 to block the supply of fuel from fuel tank 60 to engine 70.

Applicants respectfully submit that independent Claims 1, 13, 20, 24, 31, 36, 41, and 44, as well as the claims which depend therefrom, are neither anticipated by, nor obvious in view of, Fenton et al. '719.

Independent Claims 1, 20, 41, and 44 each call for an internal combustion engine (or method, as in Claim 20) wherein a fuel line fluidly communicates a volume of fuel within a fuel tank to the carburetor, and a vent line fluidly communicates an air space, or fuel vapors, within the fuel tank to the carburetor. Referring to Fig. 1A of the present application, for example, fuel line 62 fluidly communicates a volume of liquid fuel within fuel tank 54 to carburetor 34, and vent line 64 fluidly communicates an air space within fuel tank 54, *i.e.*, the space above the liquid

fuel which includes fuel vapors, to carburetor 34. In this manner, fuel vapors are prevented from escaping from fuel tank 54 to the atmosphere.

In contrast, Fenton et al. '719 includes only a single conduit that fluidly communicates a volume of fuel within fuel tank 60 with engine 70. Specifically, conduit 63 is the only conduit that communicates fuel tank 60 to engine 72 via control valve 10, to convey liquid fuel to engine 70. Fenton et al. '719 teaches providing only a fuel cutoff valve to prevent backfiring of engine 70 and does not teach any type of emissions control feature with respect to fuel vapors in fuel tank 60. More particularly, Fenton et al. '719 does not disclose, teach, or suggest any structure for communicating an air space within fuel tank 60 to engine 70 such that fuel vapors within fuel tank 60 are conveyed to engine 70 rather than escaping from fuel tank 60 into the atmosphere.

Similarly, independent Claim 36 calls for an internal combustion engine including a fuel tank containing liquid fuel and fuel vapors and supplying liquid fuel to the carburetor and fuel vapors to the engine.

As discussed above, fuel tank 60 of Fenton et al. '719 supplies fuel to engine 70 via conduit 63, control valve 10 and conduit 64. However, Fenton et al. '719 discloses no structure whatsoever for supplying fuel vapors within fuel tank 60 to engine 70, and provides no teaching suggestion, or motivation for one of ordinary skill in the art to add such a structure.

Independent Claim 13 calls for a carburetor including a carburetor body with a throat, a fuel bowl, and a control valve. Referring to Figs. 3 and 4 of the present patent application, and as discussed at Paragraph [0039], it may be seen that carburetor 34 includes a body having throat 36, fuel bowl 48, and control valve 66b. By contrast, carburetor 71 of Fenton et al. '719, although likely including a throat therethrough (not shown), lacks both a fuel bowl and a control valve. Further, there is no teaching or suggestion in Fenton et al. '719 to integrate control valve 10 with carburetor 71.

Independent Claims 24 and 31 each call for an internal combustion engine including a fuel tank having either a filler neck and a vent passage formed at least partially within the filler neck (Claim 24) or an inlet with a vent assembly attached to the inlet (Claim 31), the foregoing structures in fluid communication with the intake system of the engine.

With respect to Claims 24 and 31, Applicants respectfully disagree with the Examiner's contention that adding the foregoing claimed features to fuel tank 60 of Fenton et al. '719 would be an obvious choice of design. As discussed above, Fenton et al. '719 does not teach any type of

emissions control feature with respect to fuel vapors in fuel tank 60, and does not disclose any structure whatsoever for communicating fuel vapors from fuel tank 60. Therefore, one of ordinary skill in the art, with no knowledge of Applicants' claimed invention, would have no reason or motivation to add the foregoing claimed features to fuel tank 60 of Fenton et al. '719.

In particular, one of ordinary skill in the art would understand from the disclosure of Fenton et al. '719 that fuel tank 60 of Fenton et al. '719 would include a conventional fuel tank cap which allows venting of fuel vapors from fuel tank 60 through the cap itself. This known arrangement is discussed in Paragraph [0005] in the Background section of the present application.

For the foregoing reasons, Applicants respectfully submit that independent Claims 1, 13, 20, 24, 31, 36, 41, and 44, as well as the claims which depend therefrom, are not anticipated by, nor obvious in view, of Fenton et al. '719.

It is believed that the above represents a complete response to the Official Action and reconsideration is requested. Specifically, Applicants respectfully submit that the application is in condition for allowance and respectfully request allowance thereof.

In the event Applicants have overlooked the need for an additional extension of time, payment of fee, or additional payment of fee, Applicants hereby petition therefore and authorize that any charges be made to Deposit Account No. 02-0385, Baker & Daniels.

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Should the Examiner have any further questions regarding any of the foregoing, he is respectfully invited to telephone the undersigned at (260) 424-8000.

Respectfully submitted,



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I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on: December 5, 2005

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Name of Registered Representative



Signature

December 5, 2005

Date